परमाणु-ऊर्जा

*385. **श्री राजीव प्रताप रूडी**: क्या **प्रधान मंत्री** यह बताने की कृपा करेंगे कि:

(क) इस समय भारत की परमाणु ऊर्जा क्षमता कितनी है;

(ख) तत्संबंधी ब्यौरा क्या है;

(ग) क्या अन्य विकासशील देशों की तुलना में भारत में परमाणु ऊर्जा महंगी है; और

(घ) यदि हां, तो तत्संबंधी ब्यौरा क्या है?

प्रधान मंत्री कार्यालय में राज्यमंत्री (श्री पृथ्वीराज चव्हाण): (क) से (घ) एक विवरण सदन के पटल पर प्रस्तुत है।

विवरण

(क) और (ख) इस समय, सत्तरह परमाणु विद्युत रिएक्टर परिचालनरत हैं जिनकी कुल क्षमता 4120 मेगावाट-ई है। इनके अतिरिक्त, 316 मेगावाट-ई क्षमता वाले छः रिएक्टर निर्माणाधीन हैं और इनके ग्यारहवीं योजना में पूरा हो जाने की आशा है।

(ग) और (घ) नाभिकीय ऊर्जा की लागत देश विशिष्ट के हिसाब से होती है। भारत के अतिरिक्त, चीन ही अकेला और ऐसा विकासशील देश है जिसके पास उल्लेखनीय परमाणु विद्युत क्षमता है। इस संबंध में कोई विश्वसनीय सूचना उपलब्ध न होने की वजह से, लागत, विवेचनात्मक रूप से परियोजनाओं के पूरा होने पर आने वाली लागत पर निर्भर करती है। विकासशील देशों में माल और सेवाएं अपेक्षाकृत कम दरों पर उपलब्ध होने को देखते हुए, समकालीन विद्युत रिएक्टरों से प्राप्त होने वाली नाभिकीय ऊर्जा की लागत, विकासशील देशों के बीच तुलनीय होगी।

भारत में वर्ष 2008-09 के दौरान, परमाणु विद्युत का औसत शुल्क 234 पैसे प्रति किलोवाट घंटा था, जोकि अन्य विकल्पों की तुलना में काफी प्रतिस्पर्धात्मक माना जाता है।

Nuclear energy

†*385. SHRI RAJIV PRATAP RUDY: Will the PRIME MINISTER be pleased to state:

(a) India's capacity of nuclear energy, at present;

(b) the details thereof;

(c) whether nuclear energy in India is costlier than other developing countries; and

(d) if so, the details thereof?

THE MINISTER OF STATE IN PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN): (a) to (d) A statement is laid on the Table of the House.

Statement

(a) and (b) At present there are seventeen nuclear power reactors in operation with a total capacity of 4120 MWe In addition six reactors with a capacity of 3160 MWe are under construction and expected to be completed in the Eleventh Plan.

(c) and (d) The cost of nuclear energy is country specific. In addition to India, China is the only other developing country having a significant nuclear power capacity. While no authentic

†Original notice of the question was received in Hindi.

information is available in this regard, the cost is critically dependant on the completion cost of the projects. Considering the availability of goods and services in developing countries at lower rates, the cost of nuclear energy from contemporary power reactors would be comparable among developing countries.

The average nuclear power tariff, in India during the year 2008-09, was 234 Paise/kWh is considered quite competitive to other options.

SHRI RAJIV PRATAP RUDY: Sir, I very specifically asked about its cost comparison with developing nations. The answer states that it is China. As far as comparative cost of nuclear energy in terms of our country and China is concerned, the Government has failed to assess it. I am amused that even after so much of growth and development, and when data are available, we cannot compare our energy cost with China. But that is the answer given here.

Sir, almost a year had passed since the nuclear deal was signed. We were made to believe and the country was made to believe that the moment we sign this nuclear deal, the entire country's energy problem would be solved. *...(Interruptions)...* This was explained to the nation. *...(Interruptions)...* This is what was told to the common man in the street. *...(Interruptions)...*

MR. CHAIRMAN: Please ask the question. *...(Interruptions)...* Please ask your supplementary question. *...(Interruptions)...*

SHRI RAJIV PRATAP RUDY: Sir, I just want to ask this from the hon. Prime Minister. What are the quantifiable gains or addition or the action initiated to enhance power generation on the nuclear site by the Government so far?

SHRI PRITHVIRAJ CHAVAN: Sir, the hon. Member made many statements. But the specific question that he has asked is, "What are the gains coming out of the historic nuclear agreement that was signed by the UPA Government?"

Sir, first of all, as you are aware, our country is not very well endowed with the uranium fuel. As a matter of fact, our nuclear programme suffered and we had to run our nuclear reactors at a low capacity because there was shortage of fuel.

The first gain that has come out of the opening up of the nuclear commerce is that we have now sourced uranium from other countries. Initially, quantities have already reached from France and Russia. I assure the House that electricity generation from our existing nuclear programme will now go up to 90 per cent of the capacity with the fuel. That is part number one.

Now as far as the second part of the question regarding new imported technology reactors or the reactors which we are trying to import from other countries is concerned, it is a complex and long process. The initial agreements which we have signed with France, Russia and America are only to develop a project report. These are not purchase orders. But a very complex negotiation about exchange of information has begun with France, Russia and America. First complex project reports, commercial proposals, and technical proposals will be built and, after that, negotiation will start to actually place orders.

As you know, building of nuclear plant takes about 5-7 years. So, the perception that nuclear power will flow tomorrow was never right.

SHRI RAJIV PRATAP RUDY: Sir, what is the anticipated expenditure in the next ten years as far as nuclear power generation is concerned? What is the anticipated expenditure in the trade in which you want to indulge in the next decade or so?

SHRI PRITHVIRAJ CHAVAN: Sir, I can give some indicative prices. The current cost of installing one megawatt of nuclear capacity is about Rs.6.5 crores. Naturally, it will go up as the time goes on. So, if you are ordering 1000 megawatt plant, it will cost about Rs. 6,500 crore. Now, we have very ambitious plans. Currently, we have 4120 megawatt of installed capacity. Many reactors are under construction and, by the end of the Eleventh Plan, we will have additional 3160 megawatt capacity installed. Sir, our plan is to go up to 15000 megawatt of indigenous capacity by 2020 and the capacity addition with imported reactors will depend on many things. Negotiations are on. We are quite ambitious that we want to go up to 25000 megawatt. But, how the imported reactors will come and how the negotiations will proceed is difficult to say at this time. Many complex sets of negotiations are going on.

श्री शिवानन्द तिवारी: सभापति महोदय, अभी जैसा कि माननीय मंत्री जी ने बताया है कि 25000 megawatt nuclear energy से ऊर्जा तैयार करने की योजना है। मैं यह जानना चाहता हूं कि nuclear energy तैयार करने की जो टेक्नॉलोजी है और जो raw material है तथा जो पूंजी बता रहे हैं, ये सब चीजें बाहर से ही आयातित करनी पड़ेंगी। हम टेक्नॉलोजी भी बाहर से मंगा रहे हैं और हमारा raw material भी बाहर से ही आएगा, तो ऐसी हालत में जो raw material सप्लाई करने वाले देश हैं, टेक्नॉलोजी सप्लाई करने वाले देश हैं, क्या वे हमारी नीतियों को प्रभावित नहीं करेंगे?

SHRI PRITHVIRAJ CHAVAN: Sir, as I said, we have a very robust indigenous programme which is entirely developed by our own scientists and we have mastered the complete nuclear fuel cycle right from prospecting nuclear fuel, that is, uranium, mining it, fabricating fuel, designing up power plant and manufacturing the power plant. The entire cycle is mastered. But, we have a problem. We do not have sufficient uranium supplies. We have plenty of thorium. And, therefore, our programme is designed carefully and strategically for three-phase operation. We are already in the first phase. The second phase of breeder reactor is going on. Then, we will reach the thorium cycle. We have plenty of thorium with us. Now, if we import reactors, they will be imported on our terms. If the terms are not acceptable to us, we will not import those reactors from any country. Therefore, I assure the House that we are now a big nation in the market for buying nuclear reactors. There is a nuclear run-on shop. I think, many countries are chasing us for placing orders. So, I assure the House that orders will be placed on our conditions.

SHRI JESUDASU SEELAM: Sir, you mentioned that by 2020, nuclear capacity would be 15000 megawatt. But, by that time, our requirement is around 1,50,000 megawatt. So, it's going to be only 10 per cent so far as the Government sector is concerned. Is there any thinking to allow public private partnership? Is it a fact that Cuddapah Nuclear Reactor is going to be under public private partnership?

SHRI PRITHVIRAJ CHAVAN: Sir, there are two questions.

MR. CHAIRMAN: Please answer one.

SHRI PRITHVIRAJ CHAVAN: Okay, Sir. As far as the question of public private partnership is concerned, the current Atomic Energy Act allows minority participation by private sector. The majority participation will only be with a Central Government entity. So, if the private sector wants to join, they can join the Government company as the joint sector company with 49 per cent participation. But, Sir, I will also assure you that when you build a nuclear power plant, the entire supply chain is manufactured by Indian private sector. So, there is a great opportunity for the Indian private sector to participate in mining, in manufacture of nuclear power plants, etc. The policy about allowing private sector plants to run nuclear plants is currently not allowed. Only minority participation is permitted.

SHRI BIRENDRA PRASAD BAISHYA: Sir, my question is very simple. The hon. Minister, in his reply, categorically said that due to the shortage of uranium, India nuclear project is suffering. Sir, I want to, specifically, know from the hon. Minister what steps he has taken to get indigenous uranium from Meghalaya.

SHRI PRITHVIRAJ CHAVAN: Sir, Meghalaya has a big resource of uranium, and we are trying very hard to start a mine there.

MR. CHAIRMAN: Thank you. Question Hour is over.

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WRITTEN ANSWERS TO STARRED QUESTIONS

Increase in budgetary support for flagship schemes

*386. SHRI JESUDASU SEELAM:
DR. T. SUBBARAMI REDDY:

Will the PRIME MINISTER be pleased to state:

(a) whether the new Government is considering to give a bigger push to the flagship schemes;

(b) whether earlier the Government planned for Gross Budgetary Support (GBS) of Rs. 2,85,000 crore, including mammoth 43 per cent increase in allocation for flagship programmes;

(c) whether during 2008-09, the GBS jumped from Rs. 2,43,386 crore to Rs. 2,74,000 crore in the revised estimates, which includes Rs. 20,000 crore additional expenditure announced in the first package and Rs. 10,000 crore extra money to States; and

(d) if so, to what extent these allocations have helped in a bigger way to implement these schemes?

THE MINISTER OF STATE IN THE MINISTRY OF PLANNING (SHRI V. NARAYANASAMY): (a) to (d) Gross Budgetary Support of Rs. 2,43,385.50 crore was provided for Annual Plan 2008-09 (Budgetary Estimates). This was revised to Rs. 2,82,956.54 crore at the 2008-09 — Revised Estimates stage, which included Rs. 20,000 crore announced as stimulus package. Gross Budgetary Support of Rs. 3,25,149 crore has been provided for Annual Plan (2009-10) in